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16. Abstract

This was a natural history study comparing the effects of a brief jail sentence, suspended sentence/fine, or a therapeutic intervention known as The Weekend Intervention Program (WIP) on drunk driving recidivism and alcohol-related crashes. Offenders assigned to each sentencing alternative were followed through drivers' records for the two-year study period beginning March 1983 and ending July 1985. A statistical adjustment for individual exposure times was included in the analyses as a covariate.

The findings of the study suggested that repeat offenders receiving the therapeutic intervention had lower recidivism rates than those not receiving it. Offenders referred from general assignment courts which mandated compliance with the post-WIP treatment recommendations survived longer than offenders from the same courts not receiving it.

For the WIP group, results showed that the more severe the participants' alcohol problem, the greater their chances of recidivating. Those assessed as needing treatment had a higher recidivism rate than those seen not to be in need of further services.

The findings supported the continued confidence in the WIP by those courts already using it, encouraging those judges who use it to mandate the post-WIP treatment recommendation, and the consideration of the therapeutic intervention by communities desiring to include an effective problem assessment component in their systemic DWI counter-attack capability.

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Keeping Driving-While-Intoxicated or other alcohol-related vehicular offenders from repeating their crimes is crucial, but traditional remedies like alcohol-driver education, counseling, and short-term rehabilitation have had a mixed success record. That mixed record has spurred increased interest in imposing jail sentences to deter recidivism. This study reports on a two-year evaluation of a new therapeutic intervention that effects specific deterrents among convicted drunk-driving offenders. Using official drivers' records, researchers compared the recidivism rate among offenders who were sentenced to jail for two or three days with the recidivism rates of those receiving a suspended sentence/fine and those remanded to the Wright State University Medical School's Weekend Intervention Program (WIP). Rates of alcohol-related crashes by persons in the three study groups were also compared.

In addition to comparing three judicial sentencing alternatives, the study describes the sample of convicted offenders. It also describes those sent to WIP, offering data about their involvement with alcohol and examining issues such as the relationship between problem drinking and recidivism. The study explores how courts use an alternative-to-incarceration program such as the WIP, and how recidivism is affected by the way courts mandate compliance with WIP recommendations.

Recent studies have suggested that alcohol-driver education and short-term treatment do not reduce recidivism. One explanation is that these methods would have little impact on those suffering from alcoholism or a serious drinking problem. Much the same could be said about the impact of sentences on this group. Such problems require a different approach.

In 1978, Wright State University School of Medicine (Dayton, Ohio) developed the Weekend Intervention Program in response to this problem. This program is a short-term, intense residential effort that assesses whether a client has a drinking problem, determines its extent and severity, and then prescribes treatment. A modest evaluation of the WIP in 1982 suggested that the program reduces recidivism. Based on that earlier study, this more comprehensive evaluation was undertaken.

The WIP is part of a three-pronged community system in which the WIP is the diagnostic agent, the court the referring agent and the community-based treatment agency is the deliverer of service. The purpose of this study is to demonstrate that this intervention process helps prevent subsequent alcohol-related vehicular offenses.

(Continue on additional pages)

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The study identifies offenders processed in Miami Valley (Ohio) courts, where judges use the three, aforementioned, sentencing alternatives according to their interpretation of their own communities' mandate and their individual notions about reducing the incidence of drinking and driving. Beginning in March of 1983, people were followed until June of 1985, producing a tracking period as long as two years for the cohort whose entry offense occurred in March 1983 and as short as one year for the last cohort that entered the study in July of 1984.

Recidivism among the three groups was investigated in terms of prior offense status, license suspension action, court assignment pattern, age, sex, and blood-alcohol concentration level at the time of arrest. For the WIP clients, from whom more information could be obtained, the level of involvement with alcohol was closely examined. Because offenders were not randomly assigned to the study groups, comparisons of the WIP to both the other groups was important, since one group, the jail group, would be expected to do worse in the absence of intervention, and the other group, those given a suspended sentence/fine, would be expected to do better in the absence of intervention. Recidivism rates in a log linear model analysis and survival time, using license suspension time as a covariate in an analysis of covariance, served as the measures of outcome for the three sentencing alternatives.

Although random assignment of offenders to the three study groups is not possible in a study such as this, the effects of confounding were minimized by controlling for such factors as history of prior alcohol-related convictions, court required compliance, and court assignment practices. Analyses were conducted on a total of 3,556 cases.

Like other studies of recidivism, this investigation found that repeat offenders consistently did worse than first-time offenders. But, very importantly, with repeaters, the WIP did better than the comparison groups of Jail and Suspended Sentence/Fine (SS/F). The WIP group enjoyed a lower recidivism rate than the other two groups (WIP = 21.8%; Jail = 26.8%; SS/F = 30.4%; $p = 0.08$), and a longer average survival time (in days) in general assignment courts that mandated offenders to comply with WIP recommendations (WIP = 456.8; Jail = 373.9; SS/F = 362.0; $p = 0.05$). The recidivism rate among first-time offenders in the WIP group coming from general assignment courts that mandated offenders to comply with WIP recommendations was lower than the group of all other (JAIL and SS/F) first-time offenders (WIP = 9.2%; other = 12.7%; $p = 0.11$).

In terms of performing the diagnostic/triaging function, the WIP appears to have a sound assessment procedure. The WIP staff's assessment of their clients' alcohol problem-severity and the staff's distinction between clients that did and did not require treatment can be used as good predictors of recidivism. Our findings showed that the more severe the alcohol problem, the greater was the recidivism rate ($p = 0.0001$). Also, those clients deemed by the WIP staff to need treatment had a higher recidivism rate than clients seen as not needing treatment ($p = 0.001$).

The investigation suggested that recidivism could be reduced if the referring court mandated the post-WIP treatment recommendations made by the WIP staff. Within the WIP, offenders from general assignment courts with judges who mandate compliance with WIP treatment recommendations ("non-voluntary compliance courts") have a lower recidivism rate than do offenders who come from courts in which judges let offenders decide ("voluntary compliance courts") whether to comply with treatment recommendations (voluntary compliance = 15.7%; non-voluntary compliance = 11.7%; $p = 0.09$).

The implications of these findings are substantial. For communities in which the WIP operates, the study validates the trust that courts and other agencies have placed in it. Further, the study encourages greater use of WIP recommendations by judges in their sentencing decisions. For communities not using the WIP assessment process, the findings of this study should encourage serious consideration of the Weekend Intervention Program approach as another component in their efforts to attack the problems of drunk and impaired driving.

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INTRODUCTION

The problem of drunk driving is one of the most serious health, legal, and social concerns of the nation today. The loss of life, injury, damage, and suffering caused by the drunk driver has been universally decried. For more than two decades, we have searched for ways of preventing intoxicated people from driving; and preventing identified drunk drivers from repeating their offense (Siegal, 1985). Known as "primary" and "secondary" prevention, each has a different focus.

Primary prevention aims at encouraging responsible behavior and discouraging irresponsible or deviant behavior. Sometimes referred to as "general deterrence" it seeks to keep people from driving under the influence of alcohol in two ways: (1) affecting attitudinal change through public education; and, (2) enacting and enforcing laws that make the consequences of drunk driving so painful that people are dissuaded from doing it. Indeed, the past few years have seen the proliferation of both education and control measures. Recent reports focusing on the declining proportion of alcohol-related automobile crashes suggest that efforts in the primary prevention arena are paying off (USDOT, 1984).

Secondary prevention is much more narrowly focused. Also described as "specific deterrence," it endeavors to keep convicted offenders from repeating. It has involved the imposition of sanctions (including incarceration and the suspension of driving privileges), special education, short-term treatment or skills training to effect a permanent change in behavior (USDOT, 1984).

While primary prevention activities seem to be having the desired results, the secondary prevention record is considerably more uneven. Evaluation studies have been unable to document the widespread efficacy of drunk driver education or psychological and/or social skills training in reducing either recidivism or crashes (Swenson, 1981). Sanctions, such as the suspension of the operator's license, seem to have had a positive impact in reducing recidivism in the short run (Sadler, 1985). However, their benefit in the long run is considerably less clear. Moreover, the impact of the license sanction on preventing alcohol-related crashes remains even more difficult to establish.

Through the combined efforts of grass roots organizations--such as Mothers Against Drunk Driving and Remove Intoxicated Drivers--and the National Highway Traffic Safety Administration and state departments of highway safety, the American public's perception of the drunk driving problem has deepened and matured in this new atmosphere. Toleration of drunk driving is very rapidly evaporating and there is increasing frustration with the traditional methods of drunk driver rehabilitation.

One striking result has been the strong interest in incarceration. Again, with the agitation of the grassroots organizations and federal encouragement, many states have enacted laws which mandate short periods of incarceration--generally ranging from forty-eight to seventy-two hours--for first-time offenders, and longer ones for repeat offenders.

While the idea of mandatory jail confinement for all those convicted of DWI is simple, often effecting it is not. Courts are overwhelmed with demands for jury trials, conviction rates decline as plea-bargaining increases and jailers decry a greater strain on facilities already operating at maximum capacity. Judges are often hesitant to sentence certain classes of offenders--e.g. women--to

jail. It is the community which has to pay for the offender's incarceration to the detriment of other services, such as education and assistance to the aged. Moreover,the effectiveness of a jail sentence in affecting specific deterrence has yet to be established.

Beginning with an appreciation of the seriousness of the DWI problem, along with the public's directive to treat DWI as a crime and punish violators, there has been a search for alternatives-to-incarceration. Ideally, such an alternative would confine the offender, severely restricting his liberty while being as spartan as jail. However, unlike jail in which time is simply served, there would be highly structured activities with the ultimate goal of keeping the offender from repeating the offense.

The Weekend Intervention Program (WIP) originated and operated by the School of Medicine at Wright State University, Dayton, Ohio is one such alternative. The program was initiated in 1978, and has been used as an alternative to incarceration by judges in the greater Miami Valley area of Ohio. Since 1978, more that 12,000 offenders have completed it.

This report will examine the comparative impact of two radically different approaches to specific deterrence. They are: punishment as embodied in a 72 hour jail sentence; and, therapeutic intervention as embodied in the alternative-to-incarceration Weekend Intervention Program. While the main analysis will focus on offenders assigned to these groups, or those receiving perhaps only a suspended sentence with a fine, the data-gathering process captured information on other alcohol-related vehicular offenders processed by the same courts during the study period. This third group, a catchall or "other" category, consisted of offenders whose range of rehabilitative activities was so diverse that no meaningful statements could be offered about how the group as a whole was treated. For example, the group included those assigned to very short--eight hour--alcohol-education programs; residential, Phoenix-model DWI schools; 28 day hospital detoxification and rehabilitation programs; psychological or psychiatric services, and numerous other "treatment" alternatives. While the group's social, demographic, and offense-specific data will be presented in the section detailing the study population, they have been excluded form the data analysis which compares the impact of different sentencing alternatives on highway safety variables.

The research can best be described as a "natural history". As such, it readily acknowledges and appreciates that the investigator has virtually no control over the phenomenon that is being studied. While the ideal approximates laboratory conditions in which study factors, subject assignment and the like is completely understood and controlled, such is often not possible when studying people in natural settings. This is especially true in those situations involving highly emotionally charged issues. In such an environment, experimentation, and the heuristic rigor it provides, is simply not possible.

The natural history approach necessarily relies on post hoc control of study conditions. As such, it trades experimental rigor--and the ability to make definitive statements about causality--for the opportunity of gaining access to the desired phenomenon of study. Ultimately, it produces systematic understanding of it along with a clear recognition of its correlates.

The data set to be offered is unique. On the most general level, it describes the sentencing behavior of courts as they dispose of convicted drunk driving offenders. The study was conducted in a defined, yet large geographic area. Within it can be found a variety of ecological conditions ranging from metropolitan areas to small, rural communities. As such, the study can compare variables as they emerge within a similar socio-political context. This minimizes the problem of attempting to draw inferences by comparing target variables as they may surface in dramatically different social and/or political systems; for example, comparing DWI recidivism rates in areas with dramatically different enforcement practices (Siegal, 1982).

On a more specific level, the sentencing alternatives--or "interventions" as they'll be referred to--can be readily described. More importantly, each is mutually exclusive and the study group receiving the therapeutic intervention comes from a single, large program--i.e. the WIP. This, naturally, obviates the common, yet profound, confound of blindly lumping a large number of programs under the rubric of "treatment" and ignoring very real differences (i.e. management, staffing, therapeutic activities, etc.) that separate them.

Below, the therapeutic intervention--the Weekend Intervention Program--will be described in some detail since its evaluation is the focus of the study. Next, the study groups will be described followed by how information was obtained and managed. Finally, each of the characteristics of the study groups will be described and compared.

THE WEEKEND INTERVENTION PROGRAM

The WIP represented the culmination of more than a decade's experience. It incorporated perspectives obtained from DWI programming, occupational alcoholism programming, and the methods used in identifying and addressing early-stage substance abuse problems.

The thrust of the WIP is radically different from the preceding methods of specific deterrence. It is not an educationally-oriented program aimed at convincing convicted offenders that they should not drive under the influence; nor is it another simplistic short-term rehabilitation program whose goals include providing offenders with specific social and psychological skills to keep from behaving irresponsibly. Instead, it has three goals. The WIP first identifies the problem drinker or alcoholic with the larger population of DWI offenders. Having done so, it determines the extent and severity of the problem. Finally, equipped with this information and an appreciation of the resources that may be mobilized to address the identified problems, it prescribes those therapeutic activities which would have the greatest likelihood of changing behavior.

The WIP must be seen as but a single component of a community's counter-attack against drunk driving. It is most appropriately viewed as an effective method of triage. As such, it should be considered within the context of its use, since it relies upon the court for both its source of referrals and to encourage (or force) the offender to comply with the therapeutic recommendations it has made.

The WIP itself does not provide the treatment services. Instead, it refers offenders to community agencies or programs who already offer such services.

The public health benefits from such an approach are easily recognizable. From the perspective of highway safety, it was built on the premise that the

probability of recidivism is dramatically higher among those who have a drinking problem than those who do not. Recidivism could be lowered by identifying and treating the problem drinkers. In turn, this would increase the safety of the driving public.

In 1982, the Ohio Department of Highways Safety supported a modest evaluation of the WIP. The research suggested that the program had a positive impact on highway safety variables, especially among repeat offenders. The findings of that study needed to be interpreted carefully, however, since it relied on comparisons of very different regions in Ohio. Since these sites were so different in their population characteristics, ecology, and law enforcement patterns, only the most tentative conclusions were appropriate. Nevertheless, the results were sufficiently positive to encourage widespread interest in the program and the support of this study (Siegal, 1985).

The WIP program has been enthusiastically received by courts throughout Ohio's Greater Miami Valley and has won widespread support throughout varied segments of the lay and professional communities within the state. More recently, WIP programs have been instituted in other Ohio cities, other states, and Canada.

STUDY GROUPS

The research will compare offenders sentenced to the following methods of alternative sentencing:

JAIL

THE WEEKEND INTERVENTION PROGRAM

SUSPENDED SENTENCE/FINE

Each will be described below.

JAIL...For offenders in this study group, sentencing resulted in a jail term of a minimum of 48 hours to a maximum of 72 hours. This time was spent in a certified jail facility with no additional type of education or treatment.

WEEKEND INTERVENTION PROGRAM (WIP)...This group completed, as their sentencing, one weekend at the WIP. According to the mandate of the court, an offender was assigned to one of the following program types:
1) The continuous 48-hour WIP, which begins Friday afternoon and terminates Sunday evening, emphasizing assessment and diagnosis;
2) The continuous 72-hour WIP begins Thursday afternoon and provides an additional 24 hours of confinement and alcohol education; and
3) A 24-hour jail confinement followed by participation in the 48-hour WIP.

SUSPENDED SENTENCE/FINE (SS/F)...This group was composed of people who only were required to pay a fine. No additional jail time, intervention and/or education was a part of their sentencing.

In each of these groups, some license action affecting driving privileges could occur in addition to the specific sentence.

RESEARCH SETTING AND SAMPLE FORMATION

The setting for this research is the greater Miami Valley region of Ohio. This region encompasses several counties in the southwestern quadrant of the state, excluding the metropolitan Cincinnati area (Figure A).

FIGURE A

Only courts-of-record were included in the study. Others, such as mayor's courts, having more circumscribed powers, were not. Not included was a limited number of courts making no referrals to the WIP. Geographically distant courts referring Miami Valley natives who were convicted in their jurisdictions were not included as well.

The ecological areas encompassed through these several counties represent a wide range of urban, suburban and rural settings. A listing of each county's contribution to the study is presented as Figure "B" below.

FIGURE B

COUNTY CONTRIBUTION TO THE STUDY POPULATION

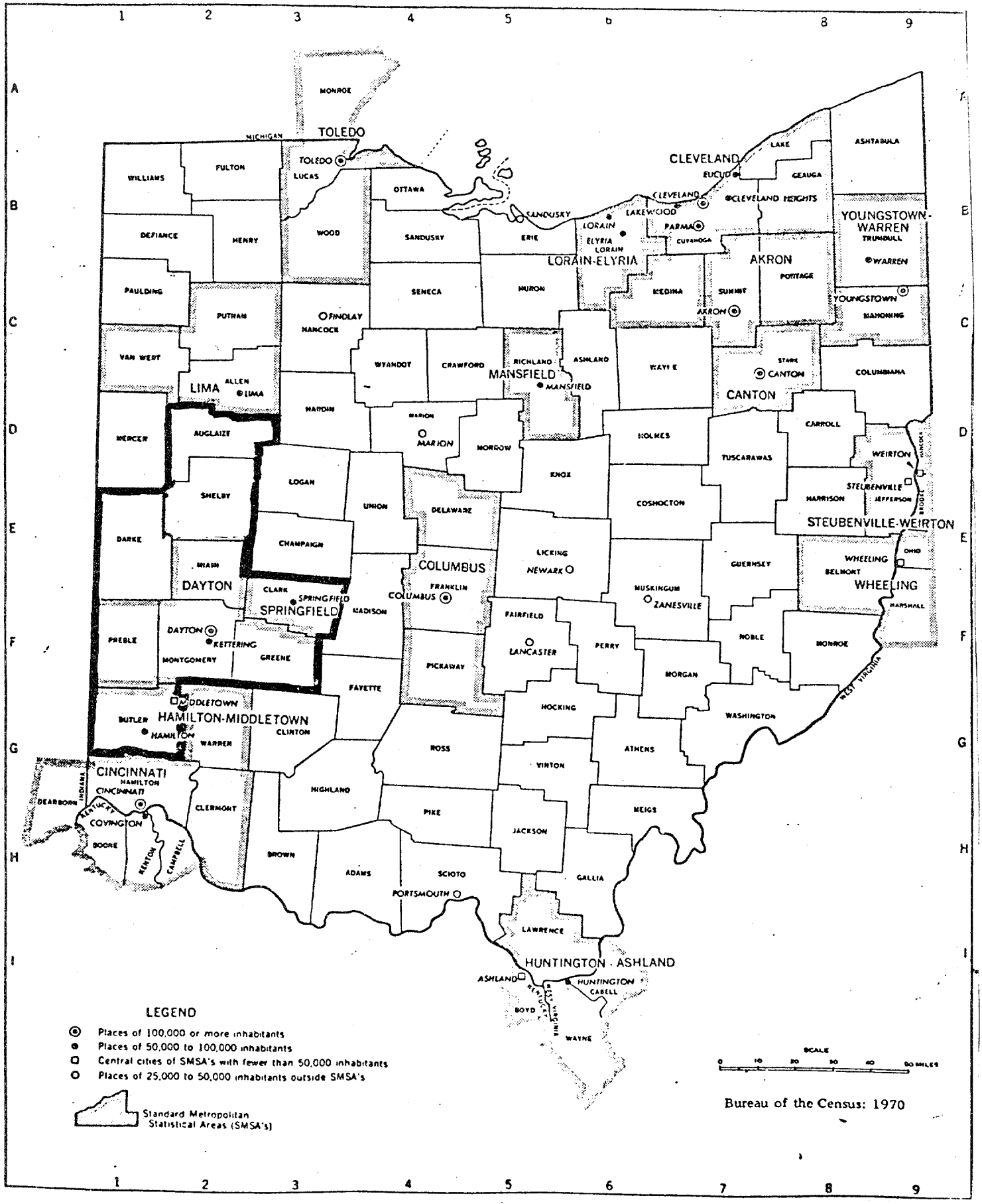
County	Frequency	Percent
Auglaize	110	2.4
Butler	142	3.2
Clark	417	9.3
Greene	408	9.1
Miami	380	8.4
Montgomery	2424	53.9
Preble	210	4.7
Shelby	408	9.1
TOTAL	4499	100.1[a]

[a]Due to rounding, percentages may not total 100.00

The project intake period began March 16, 1983 and terminated July 31, 1984. To be included in the study, an offender had to have sustained an arrest for driving while intoxicated or a similar offense within the one year period following the enactment of the new drunk driving law which took effect on March 16, 1983. The extension made it possible to capture data from those people whose lag in court processing, and conviction, and/or sentencing resulted in several months delay.

All courts involved were visited by project staff. Cases were identified directly from dockets and other court records. In this manner the JAIL, SUSPENDED SENTENCE/FINE, and OTHER groups were identified. The WIP group, however, was formulated by including all persons who had attended the program during the intake period. These were identified directly through program records.

FIGURE A
WIP Catchment Area



All persons convicted of an alcohol-related driving violation in the designated jurisdictions during the one year intake period were identified and were initially placed in the study sample.

At the court, the following preliminary information was obtained:

Offense date

Social Security Number

Conviction offense

Officiating judge

Sentencing action

Date of conviction

When available, Blood Alcohol Concentration (BAC) at the time of arrest was obtained. These data were gathered from either the original citation or court records; in some cases the information on BAC was only available from police records.

Once the subject groups were initially formulated, listings of Social Security Numbers were compiled. These were then sent to the Ohio Department of Highway Safety, Bureau of Motor Vehicles for a hard copy of the driving history which are maintained for a three year period and then typically purged of citations.

DATA MANAGEMENT

Once driving records were received for the study sample, their records were examined and those people who did not meet study requirements were removed from the study sample. For example, persons were dropped for the following reasons: (1) no driving record was available; (2) Social Security number was incorrectly recorded and the wrong driving record was received; (3) the offense actually occurred prior to March 16, 1983; (4) the individual was acquitted or charges were dismissed; (5) an offender attended WIP and also served 3 days in jail (either before or after their attendance) and (6) an individual resided outside of Ohio or did not have an Ohio operator's license. One hundred thirty-five subjects were removed resulting in a sample size of 4499.

As the verification of study sample selection criteria was completed, data reduction and coding were accomplished. Information on variables pertaining to pre-study driving history and sociodemographic information was included.

Then, for the WIP sample, additional information, available only on the WIP participants, was transcribed from the clinical records. Appendix A contains a listing of the variables as reflected in the project codebook. Appendix B describes the coding procedures.

After all data were encoded, they were entered into the University computer system for verification and preliminary data analysis. Frequency distributions were generated for each variable in the database. These frequency distributions were examined for the occurrence of any errors or inconsistent entries. These were identified and corrected as appropriate.

Beginning in the late spring of 1985, the Ohio Department of Highway Safety, Bureau of Motor Vehicles supplied driver records of those entering the study between March 1983 or July 1984. These were requested on a staggered basis (over a three-month period) to allow each subject maximum exposure time.

These records were coded, verified and added to the master data file. Some additional offenders were dropped from the study at this data-entry stage as well. Reasons for removal included, death, no official record of the earlier entry-offense, etc. (the routine expunging of notations would not have any bearing on these removals since DWI convictions are maintained on the record for a five-year period by law). Note was made of any license actions, alcohol-related convictions, crashes and current license status.

TOTAL STUDY SAMPLE

SEX AND AGE

The sample was a young one and was predominantly male in gender. Some 85.5% were male, while 14.3% were female. Table 1 represents the age distribution of the study sample. Half were under 29 years of age; about one-third (33.7%) were younger than 25.

The age-frequency distribution consistently declined in the older cohorts. These findings are consonant with other studies which document the preponderance of young people in the offender population (Peck, 1985).

One final note should be made on age. A substantial representation of very young people--20 years or younger--appeared in the study sample with 11% falling into this cohort. Most distressing, however, 3% of the convictees were under 19 years old, which is the minimum drinking age in Ohio.

TABLE 1

TOTAL STUDY SAMPLE AGE DISTRIBUTION

Age	Frequency	Percent
17-24	1523	33.9
25-29	903	20.1
30-34	577	12.8
35-39	466	10.4
40-44	310	6.9
45-49	235	5.2
50-54	208	4.6
55-59	128	2.8
60-64	85	1.9
65+	59	1.3
MISSING DATA	5	0.1
TOTAL	4,499	100.0

BLOOD ALCOHOL CONCENTRATION AT ARREST

Table 2 presents the available data on BAC at arrest. The large representation of missing data (44% of the cases) reflects either test refusals and/or lack of these data at the court site.

TABLE 2

BLOOD ALCOHOL CONCENTRATION AT ARREST

BAC	Frequency	Percent
0.0 - 0.10	223	5.0
0.11 - 0.14	529	11.8
0.15 - 0.19	903	20.0
0.20 - 0.24	621	13.8
0.25 - 0.29	197	4.4
0.30 - 0.34	51	1.1
$\geq$ 0.35	5	0.1
MISSING DATA	1970	43.8
TOTAL	4499	100.0

Nevertheless, the data do suggest that a substantial proportion (39%) of the sample did register high BAC's (BAC's $\geq$ .15%) at the time of arrest; 19% presented with a BAC $\geq$ .20%.

If one were to exclude the missing cases, the preponderance of convictees (65%) presented with a BAC $\geq$ .15%. Using this same tack, 35% presented with extremely high BAC's of $\geq$ .20%.

While the large representation of missing data makes any definite conclusion problematic, the available data do encourage the suggestion that the convictees were heavy drinkers. Repeat offenders tended to be more likely to refuse to submit to a chemical test at the time of subsequent arrests.

CRASH OCCURRING AT THE TIME OF ARREST

Some 13.3% of the convictees had a crash which resulted in their arrest.

LICENSE SUSPENSION

Some 88% of the sample received an operator's license suspension in addition to other sanctions. Table 3 presents the distribution of these actions by length of suspension.

TABLE 3

LICENSE SUSPENSIONS

SUSPENSION LENGTH (MONTHS)	FREQUENCY	PER CENT
No Suspension	968	21.5
1 Month	365	8.1
2 Months	644	14.3
3 Months	380	8.4
4-6 Months	352	7.8
7-12 Months	495	11.0
13-28 Months	1295	28.8
MISSING DATA	0	0
TOTAL	4499	99.9

LEGAL HISTORY

A substantial proportion of the study sample had a prior conviction for an alcohol-related vehicular offense. Table 4 presents this distribution. All offense types--e.g. Driving While Intoxicated, Reckless Operation, Physical Control, etc.--have been combined.

TABLE 4

PRIOR ALCOHOL-RELATED CONVICTION

NUMBER OF CONVICTIONS	NUMBER	PER CENT
0	3221	71.6
1	862	19.2
2	278	6.2
3	85	1.9
≥ 4	47	1.0
MISSING DATA	6	0.1
TOTAL	4499	100.0

A much smaller group had sustained a prior alcohol-related automobile crash. Some 3.8% have had at least one prior crash enumerated on their driver's record.

CONVICTIONS

The overwhelming majority of the study sample was convicted of DWI, which was the charge under which they were originally arrested. (See Table 5).

"Reckless Operation" is a lesser offense carrying lighter penalties and fewer operator's license sanctions.

Reliable data on total arrests and subsequent acquittals or dismissals-of-charges are not available on a regional basis.

TABLE 5

TYPES OF ALCOHOL-RELATED CONVICTIONS

CONVICTION	NUMBER	PER CENT
DWI	3510	78.0
Reckless Operation	742	16.5
Physical Control	77	1.7
Other	156	3.5
MISSING DATA	14	.3
TOTAL	4499	100.0

STUDY GROUP SPECIFIC DATA

INTRODUCTION

The larger goals of the study call for comparing the recidivism of offenders sentenced to the WIP, Jail, or Suspended Sentence. The following section will display available data on these groups. Since the "other" category will not be included in the analyses, it will be deleted henceforth with a total N reflecting 3556 cases

SEX AND AGE

The sentencing patterns of area courts demonstrate that a gender is a factor in the sentencing decision. Consider the following table:

TABLE 6

GENDER COMPOSITION OF STUDY GROUPS

SEX	WIP		JAIL		SS/F		TOTAL	
	N	%	N	%	N	%	N	%
MALE	1083	81.6	1313	89.6	646	84.6	3042	85.5
FEMALE	238	17.9	151	10.3	118	15.4	507	14.3
MISSING DATA	6	0.5	1	0.1	0	0.0	7	0.2
TOTAL	1327		1465		764		3556	

There is a strong indication that among men, the jail sanction was more frequently imposed. However, the reverse holds true for women, who were more likely to be remanded to the WIP or some other alternative ($p<.0005$; chi-square test).

The findings for age were not remarkable. They suggest reasonable comparability across each of the study groups ($p=.348$; chi-square test).

TABLE 7

SENTENCING BY AGE

AGE GROUP	SENTENCING CATEGORY							
AGE	WIP		JAIL		SS/F		TOTAL	
	N	%	N	%	N	%	N	%
17-24	438	33.0	491	33.5	262	34.3	1191	33.5
25-29	265	20.0	281	19.2	167	21.8	713	20.1
30-34	175	13.2	185	12.6	96	12.6	456	12.8
35-39	129	9.7	168	11.5	68	9.0	365	10.3
40-44	87	6.5	108	7.4	57	7.5	252	7.1
45-49	74	5.6	70	4.8	43	5.6	187	5.3
50-54	62	4.7	71	4.8	38	5.0	171	4.8
55-59	42	3.2	50	3.4	13	1.7	105	3.0
60-64	25	1.9	28	2.0	10	1.3	63	1.8
65+	25	1.9	13	0.9	10	1.3	48	1.3
MISSING DATA	5	0.4	0	0.0	0	0.0	5	0.1
TOTAL	1327		1465		764		3556	

This consonance in age distribution held when the data were organized by age cohort across sentencing alternative. Courts did not appear to use age as a factor in sentencing decisions. If anything, the WIP was the choice for the oldest age cohorts.

BLOOD ALCOHOL CONCENTRATION

The distribution of offenders in the BAC ranges for each sentencing category is presented in Table 8.

The BAC did appear to have some influence on the sentencing decision ($p<.0005$; chi-square test). For example, a low BAC was more likely to gain a suspended sentence than a higher one. This reflects the observation that a lower BAC ($\leq$ .10%) will be less likely to result in a conviction for DWI.

TABLE 8

SPECIFIC BLOOD ALCOHOL CONCENTRATION BY SENTENCING CATEGORY

BAC	WIP		JAIL		SS/F		TOTAL	
	N	%	N	%	N	%	N	%
0.0-0.10	22	3.0	40	4.5	131	31.6	193	9.5
0.11-0.14	137	18.7	146	16.5	133	32.0	416	20.5
0.15-0.19	274	37.4	353	39.9	92	22.2	719	35.4
0.20+	300	40.9	346	39.1	59	14.2	705	34.6
Total	733	100.0	885	100.0	415	100.0	2033	100.0
MISSING DATA	594	44.8	580	39.6	349	45.7	1523	42.8
TOTAL	1327		1465		764		3556	

LEGAL HISTORY

When the legal history of the study is considered, a relationship is found between the number of alcohol related offenses and the sentencing alternative ($p<.0005$; chi-square test).

TABLE 9

PRIOR OFFENSE STATUS OF STUDY GROUPS

NUMBER OF PRIOR ALCOHOL-RELATED OFFENSES	WIP		JAIL		SS/F		TOTAL	
	N	%	N	%	N	%	N	%
0	941	70.9	979	66.8	588	77.0	2508	70.5
1	263	19.8	315	21.5	122	16.0	700	9.7
2	82	6.2	120	8.2	30	3.9	232	6.5
3	24	1.8	35	2.4	14	1.8	73	2.1
4	7	0.5	11	0.8	9	1.2	27	0.8
5+	4	0.3	5	0.3	1	0.1	10	0.3
MISSING DATA	6	0.5	0	0.0	0	0.0	6	0.2
TOTAL	1327		1465		764		3556	

As the study group and legal history are brought more clearly into focus by collapsing the number of alcohol related offenses to "none" and "at least one", it is seen that the jail group has proportionately more offenders with at least one prior offense in it ($p<.0005$; chi-square test). Table 10 presents these data.

TABLE 10

LEGAL HISTORY OF EACH STUDY GROUP

PRIOR ALCOHOL RELATED OFFENSES	WIP		JAIL		SS/F		TOTAL	
	N	%	N	%	N	%	N	%
0 (No)	941	71.0	979	66.8	588	77.0	2508	70.5
≥1 (Yes)	380	28.6	486	33.2	176	23.0	1042	29.3
MISSING DATA	6	0.5	0	0.0	0	0.0	6	0.2
TOTAL	1327		1465		764		3556	

PRIOR ALCOHOL RELATED CRASHES

A similar distribution occurs in the case of prior alcohol-related crashes. Some 97% of the WIP and the Suspended Sentence/Fine study groups had no prior crashes charged to their records. In the case of the jail group, only 95% present with crash-free records. Table 11 portrays these distributions.

TABLE 11

HISTORY OF ALCOHOL-RELATED CRASHES BY STUDY GROUP

NUMBER OF CRASHES	WIP		JAIL		SS/F		TOTAL	
	N	%	N	%	N	%	N	%
0	1288	97.1	1397	95.4	741	97.0	3426	96.3
1	32	2.4	64	4.4	22	2.9	118	3.3
2	5	0.4	3	0.2	1	0.1	9	0.3
3	1	0.1	0	0.0	0	0.0	1	0.0
4	0	0.0	1	0.1	0	0.0	1	0.0
MISSING DATA	1	0.1	0	0.0	0	0.0	1	0.0
TOTAL	1327		1465		764		3556	

LICENSE ACTION

In addition to other sanctions, some form of operator's license action was taken. Table 12 portrays these distributions within the study groups.

TABLE 12

LICENSE SUSPENSION BY STUDY GROUP AND DURATION

DURATION OF SUSPENSION	WIP		JAIL		SS/F		TOTAL	
	N	%	N	%	N	%	N	%
No Suspension	336	25.3	89	6.1	323	42.3	748	21.0
≤ 1 months	241	18.2	15	1.0	68	8.9	324	9.1
2 months	138	10.4	301	20.6	61	8.0	500	14.1
3 months	74	5.6	153	10.4	37	4.8	264	7.4
4-6 months	144	10.9	96	6.6	40	5.2	280	7.9
7-12 months	154	11.6	191	13.0	68	8.9	413	11.6
> 1 year	240	18.1	620	42.3	167	21.9	1027	28.9
MISSING DATA	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	1327		1465		764		3556	

The jail group received the longest suspensions and more of those sent to jail received some license action ($p<.0005$; chi-square test).

STUDY GROUP PROFILES

Analysis of the data suggests reasonable comparability across study groups on most variables. Focusing specifically on the WIP and Jail groups, no significant differences were found for age, alcohol related crash with the entry offense, or BAC ($p \geq 0.35$ in each case). However, those in the Suspended Sentence/Fine group had an average BAC that was significantly lower than the other two groups ($p< .0001$). The jail group had more prior convictions for DWI, fewer women, and a larger median license suspension time ($p< .0001$). The WIP group had more prior convictions for Reckless Operation ($p= .001$) which is usually the "reduced charge" that convictions result in. Figure C presents a profile of the study groups.

FIGURE C

STUDY GROUP PROFILES

VARIABLES	JAIL	WIP	SS/F
Age (Median)	28	28	28
Sex (% Male)	89.6	81.6	84.6
Entry Offense (%DWI)	95.6	90.3	22.9
Crash With Offense	13.5%	12.8%	15.1%
Blood Alcohol Concentration (Median)	.18%	.18%	.12%
License Suspension (% Yes)	93.9	74.7	57.7
Median License Suspension Length	8 months	1 month	1 month
Any Prior DWI (% Yes)	25.4	16.3	15.5
Any Prior Reckless Operation (% Yes)	11.1	14.8	9.7
Any Prior Physical Control (% Yes)	2.2	3.4	2.5
Any Type Prior Alcohol-Related Convictions (% Yes)	33.2	29.1	23.0
Any Prior Alcohol-Related Crashes (% Yes)	4.7	2.9	3.0

WIP SPECIFIC DATA

INTRODUCTION

Through the intensive contact with the offenders referred to it, the WIP obtains detailed information on their social and demographic characteristics that were not available on the other groups. The program is designed to make a clinical assessment about the offender's involvement with alcohol. This finding along with the post-WIP service recommendations made by the clinical staff will be presented below. These data will include only those people remanded to either the 48-hour or 72-hour WIP.

Race/Ethnicity Data on ethnicity were not available through the BMV. However, these data were obtained for WIP clients. Whites constituted 92% of the population sample; non-white 8% of the population sample.

Marital Status The sample was essentially an unattached one. Table 13 presents this distribution.

TABLE 13

MARITAL STATUS OF WIP

STATUS	FREQUENCY	PER CENT
Married	435	33.6
Widowed	34	2.6
Divorced	273	21.1
Separated	37	2.9
Never Married	504	39.0
Missing Data	11	0.9
TOTAL	1294	100.1

Only one-third 34% of the group reported being married and residing with their spouse at the time of their participation. Almost 39% reported that they have never been married; this presumably reflects the relative youth of the population. It encourages the speculation, as well, that the elements of their lifestyle--drinking and barroom sociability in search of relationships--provided the set and setting responsible for their arrest and subsequent conviction.

Occupation The data on occupation suggest that the overwhelming majority was employed in a job outside of the home at the time of their conviction. Table 14 presents this distribution.

TABLE 14

OCCUPATIONAL DISTRIBUTION OF WIP SAMPLE

OCCUPATION	FREQUENCY	PER CENT
Unemployed	126	9.7
Professional	77	5.9
Manager	60	4.6
Administrator	23	1.8
Sales	89	6.9
Clerical	46	3.5
Skilled Labor-Factory, etc.	235	18.2
Unskilled Labor-Construction, etc.	300	23.2
Student	59	4.6
Farm	8	0.6
Homemaker	16	1.2
Self-Employed	50	3.9
Retired	42	3.3
Disabled	10	0.8
Other	138	10.7
Missing Data	15	1.2
TOTAL	1294	100.1

Less than one-fifth reported being unemployed or not currently in the labor force.

The data demonstrated a very heavy representation (41%) of blue-collar workers (skilled and unskilled labor) in the sample.

ALCOHOL OR DRINKING PROBLEM ASSESSMENT

The central task of the WIP is to determine whether the offender sentenced to it has a drinking problem, and if so, its extent and severity. The WIP assessment considers data sources which include, but are not limited to: prior arrest history; BAC; the results of standard diagnostic tests such as the Michigan Alcoholism Screening Test, the Mortimer-Filkens Test, etc.; an extensive personal history obtained by WIP professional staff; and the (clinical) observations made by the professional staff as clients complete the various program activities.

The assessment methodology developed by the WIP requires two professional counselors working with each client in primarily a small group context over the entire weekend. Group counseling activities are supported by educational presentations and individual counseling sessions. The assessment reflects the combined opinion of the two counselors. A "staffing conference" involving participating staff and program administration is held on each client before the findings and recommendations are officially tendered to the client and court. This is done to assure that all the relevant data have been obtained and the conclusions and recommendations are appropriate.

The WIP provides the referring court with a narrative report that reflects a composite picture of the offenders: their problems, their needs and resources.

The assessment reflects the level or extent of alcohol-related impairment in the individual's life. It considers variables such as harm to family, legal status, finances, psychological functioning/self-image, health, social relationships and the like. It also includes focused indicators of dysfunctional alcohol involvement such as changes in tolerance to the effects of alcohol, history of "blackouts" (i.e. alcohol induced incidents of amnesia), physiologic signs and symptoms and other indicators of alcoholism.

Five alcohol-problem designations are used by the WIP. They are:

I. NO PROBLEM...denotes individuals who appear to be entirely in control of their drinking. The offense which brought them to the program is isolated, situational in nature, and reflective of poor judgment. The individuals appear to have learned from their mistake, and the staff see them at minimal risk for repeating.

II. LIFE STYLE ISSUES...denotes some alcohol induced harm to one or two areas of an individual's life. It suggests as well that the individuals can still control their drinking, if they elect to do so. However, they are at risk for repeating due to such factors as maturity and life style, especially involving their drinking patterns.

III. MODERATE PROBLEM/NO DEPENDENCE...denotes more extensive, longer impairment. However, there is insufficient data to document current dependence on alcohol.

IV. MODERATE PROBLEM/PROBABLE DEPENDENCE...denotes a similar amount of impairment. It is highly probable, however, that the person is psychologically dependent upon alcohol. In these cases, drinking is exceeding the realm of the individual's control.

V. SEVERE PROBLEM...denotes extensive harm in most if not all of the person's life-areas and the very likely presence of dependence on the drug.

TABLE 15

WIP STAFF ASSESSMENT OF ALCOHOL PROBLEM

ALCOHOL PROBLEM ASSESSMENT	FREQUENCY	PER CENT
No Problem	313	24.2
Life Style Issues	360	27.8
Moderate Problem/No Dependence	249	19.2
Moderate Problem/Probable Dependence	241	18.6
Severe Problem	115	8.9
Missing Data	16	1.2
TOTAL	1294	99.9

Table 15 presents the distribution of alcohol problems within the WIP group. These data suggest that almost half (47%) of the WIP group suffered from a drinking problem of some magnitude.

The data also suggest that only one-fourth (24%) of the offenders seen by the WIP would actually merit the "unlucky social drinker" label. These were people whom the WIP professional staff assessed as presenting little risk of any subsequent legal or drinking problems.

The somewhat larger group of persons designated as reflecting "Life Style Issues" (28%) were seen as a group at risk. Their life-style, especially current drinking patterns, makes them vulnerable to both recidivism or even drinking-related difficulty in other areas of their lives.

In addition, a survey of the program's clinical records suggests the following observations:

- One-third (32.6%) of the group suffered from alcohol-related health or medical problems.
- More than one-third (34.7%) reported that their drinking has caused problems with their families; an additional 10.8% reported that these problems were severe enough to cause the disintegration of the family.
- Approximately one-fourth (23%) of the WIP group reported that their drinking has caused problems on the job; 8.3% reported that they have been fired from employment because of their drinking.
- Some 20% of the WIP group reported that they had received some form of assistance or service for alcohol and/or drug problems in the past.

POST-WIP TREATMENT/SERVICE RECOMMENDATIONS

The WIP made formal recommendations for some form of follow-up treatment or service to more than half (58%) of its participants. These recommendations were based upon the staff's assessment of the clients' problem and the kind of service most likely to ameliorate it. In planning the service referral, WIP staff also include a consideration of factors such as the client's resources (e.g. health insurance, familial support, employment, etc.), maturity and motivation. Referrals were made to community agencies/programs that offered alcohol (or drug) specific treatment services; or, mental health services if these were needed. Table 16 presents the distribution of these recommendations.

TABLE 16

POST-WIP SERVICE RECOMMENDATION

TYPE OF SERVICE RECOMMENDED	NUMBER	PER CENT
No Follow-up	187	14.4
No Follow-up/Maturity/Lifestyle Places at Risk	378	29.2
Limited Education Counseling[1]	187	14.4
Standard Outpatient[2]	287	22.2
Day Care[3]	15	1.2
Inpatient[4]	61	4.7
Alcoholics Anonymous/Other Self Help Fellowships[5]	93	7.2
Other Counseling/Therapy[6]	72	5.6
Missing Data	14	1.1
TOTAL	1294	100.00

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[1] Short-Term Counseling Education involves 8 to 12 sessions supporting or reinforcing the perspective provided by the WIP.

[2] A Standard Outpatient program involves 16 to 26 weeks of twice-daily counseling sessions supported by regular Alcoholics Anonymous involvement.

[3] A Daycare Treatment program offers 6 to 8 weeks of daily service (Monday through Friday) for 4 to 6 hours per day, providing counseling and education.

[4] Residential or Inpatient provides medically supervised detoxification followed by residential treatment for 28 days; typically it is followed by a formal after care program.

[5] Alcoholics Anonymous/Self Help Fellowship involves weekly or more frequent attendance at AA (or similar) meetings for 12 to 26 weeks.

[6] Other counseling/therapy involves referral to community mental health center (or private therapists). The terms and specifications of this service are negotiated between the patient and the agency/therapist.

Typically, the WIP will provide the offender with a specific site (agency or program) for the recommended service. Some courts have stipulated that the WIP only make an assessment and recommend a level-of-service (i.e. outpatient, limited counseling, etc.). The court itself will then identify an agency or program to provide the service.

Some courts routinely make the WIP recommendation a condition of the offenders' probation requirements and order them to follow it; others leave the decision wholly to the offenders themselves. Typically, however, courts are much more likely to mandate compliance with WIP recommendation for repeat offenders. The trend, however, appears to be moving towards utilizing the WIP reports/recommendation in sentencing decisions.

COURT-RELATED FACTORS AND SENTENCING ALTERNATIVES

The sentencing patterns and preferences of the courts' structure the data analysis of this study. The courts are the conduit for all study participants, deciding who comes to the WIP and who does not. However, they do not use the same criteria among themselves for selecting who goes to the WIP and who goes elsewhere.

If courts uniformly used the WIP, jail, and SSF, one would expect that the most incorrigible offenders would be sent to jail, those least expected to reappear before the judge to be given a suspended sentence or fine, and those somewhere in between sent to the WIP. This would make it difficult to interpret differences in recidivism rates--or perhaps any other variables--among the three groups. However, from the experience gained in operating the WIP for these many years, the issues are not this simple. All courts do not use the same criteria for making sentencing decisions in alcohol-related driving offenses.

Judges do enjoy a very significant amount of autonomy in their sentencing prerogatives. As such, they can--and most certainly do--exercise great discretion in their use of sentencing alternatives. From the judge's perspective, the manifestation of discretion involves their interpretation of the community's mandate to them concerning drunk driving and their own beliefs and understandings of human behavior vis-a'-vis the available sentencing alternatives. From a research perspective, this introduces the thorny issue of subject selection (Cook, 1979). If ignored, it ultimately compromises the findings; however, if appreciated and respected it will provide much additional depth to the interpretation and understanding of the data in this report.

A conviction of DWI, for some judges, calls for a mandatory period of imprisonment; others are influenced by the offender's history or other characteristics; and, others see a conviction for drunk driving--especially if it has occurred before--as an indication of a deeper, more far-reaching problem. These latter jurists tend to define their role and that of the court, in general, in broader terms, aiming at the ultimate protection of society by the therapeutic, rather than punitive, rehabilitation of the offender.

Some courts use the WIP as a presentence investigatory mechanism, requiring that each offender be fully evaluated or assessed by the program. These courts then use WIP recommendations to inform conditions of the offender's sentence and/or probation. In this situation, the court tends to assign most of those convicted of DWI to WIP. They are designated as General Assignment Courts and their referral practices do not reflect any selection biases.

Others, designated as High Risk Assignment Courts, see the WIP as the program-of-last-resort; they systematically select and refer only the high risk offenders to it. From these courts the WIP receives only the most intransigent of the repeat offenders, or those who the judge believes have a severe alcohol or drug problem. These same courts systematically assign first time offenders, and/or those perceived as having no problem to an educational-type program. This latter kind of distribution is reflected in a heavy utilization of the "Other" sentencing category.

The differing sentencing patterns can be seen in Table 17

TABLE 17

SENTENCING DECISIONS BY COURT

COURT/TYPE	AREA SERVED	WIP		JAIL		SS/F		OTHER[a]		TOTAL
I	(Rural)	17	15.5%	52	47.3%	4	3.6%	37	33.6%	110
II	(Urban)	21	14.8%	82	57.7%	6	4.2%	33	23.2%	142
III	(Urban)	27	15.3%	48	27.1%	5	2.8%	97	54.8%	177
IV	(Urban)	211	20.1%	463	44.2%	214	20.4%	160	15.3%	1048
V	(Rural)	170	81.7%	26	12.5%	0	0%	12	5.8%	208
VI	(Surburban)	201	93.1%	8	3.7%	5	2.3%	2	.9%	216
VII	(Rural)	109	28.8%	43	11.3%	83	21.9%	144	38.0%	379
VIII	(Suburban)	30	11.3%	40	15.0%	57	21.4%	139	52.3%	266
IX	(Suburban)	75	36.1%	47	22.6%	32	15.4%	54	26.0%	208
X	(Suburban)	50	36.8%	36	26.5%	31	22.8%	19	14.0%	136
XI	(Suburban)	31	40.3%	10	12.9%	34	44.2%	2	2.6%	77
XII	(Suburban)	26	76.5%	2	5.9%	3	8.8%	3	8.8%	34
XIII	(Urban)	60	14.7%	225	55.1%	60	14.7%	63	15.4%	408
XIV	(Suburban)	96	27.7%	55	15.8%	48	13.8%	148	42.6%	347
XV	(Suburban)	50	18.5%	129	47.8%	78	28.9%	13	4.8%	270
XVI	(Rural)	3	1.3%	136	60.2%	82	36.3%	5	2.2%	226
XVII	(Rural)	40	29.6%	61	45.2%	22	16.3%	12	8.9%	135
TOTAL		1217	27.7%	1463	33.3%	764	17.4%	943	21.5%	4387

Missing=112
N=4499

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[a] OTHER INTERVENTION TYPE...Some of these offenders have been sentenced or admitted into a court-administered "Diversion Program" (which may or may not include additional education), or were sent to one of the non-residential or residential programs in the area. The educational program and the educational component offered by the diversion programs are based on the traditional ASAP "Phoenix Model" with offenders receiving a total of eight to twelve hours of training. Others have been immediately remanded into treatment or mandated participation in a self-help fellowship such as Alcoholics Anonymous. Actual participation or completion of any of these could not be established.

This table demonstrates the differences in court sentencing patterns. For example, one high volume court assigns virtually all (93%) of its convictees to the WIP; others send as few as 1% of their convictees to the program. Similar differences in distributions can be observed for the other sentencing alternatives as well.

SENTENCING CRITERIA

Different courts send different kinds of offenders to the WIP. Two types of courst have been identified based on the following criteria:

1. the number of alcohol-related offenses of the offenders they send;
2. the assessed extent of the drinking problems of the offenders they send; and
3. the number of post WIP treatment recommendations made for the offenders they send.

The two types of courts are:

- o The HIGH RISK ASSIGNMENT COURTS
- o The GENERAL ASSIGNMENT COURTS

The High Risk Assignment Courts send a much higher number of their worst cases to the WIP. The General Assignment Courts send a greater proportion of all offenders they process to the WIP. As a result, the WIP receives a significantly lower proportion of these "worst cases" from the General Assignment Courts.

Table 18 shows these differences.

Table 18

CHARACTERISTICS OF WIP PARTICIPANTS COMING FROM HIGH RISK ASSIGNMENT AND GENERAL RISK ASSIGNMENT COURTS[a]

	General Assignment	High Risk Assignment
% With Prior Offense (from BMV Records)	24%	34%
% With Prior Offense (from Self-Report)	32%	48%
Alcohol Problem (% Moderate-Severe)	39%	69%
% Recommended to Treatment	49%	65%
% Male	78%	85%
Age (Median)	27.3	29.5
BAC (Median)	.183%	.175%
	N = 601	N = 561

[a] Using the Wilcoxon two-sample test for the age and BAC variables and the chi-square test for the remaining variables, differences between these two assignment groups were found to be statistically significant ($p < .02$) for all variables except BAC.

Post WIP Treatment Compliance

Another important dimension that separates courts is how integrated the WIP is in the judicial process. For some, the program is a simple alternative-to-incarceration. In these courts, once the offender completes his time in the WIP, he is "finished" with the court; any recommendations or observations made by the WIP are effectively disregarded by the court.

In other courts, offenders are found or plead guilty, the sentence to the WIP imposed, and then they are ordered to return to court following completion of the WIP. At the second appearance, the recommendations made by the WIP are incorporated into the conditions of their probation and they are ordered to comply with them.

The former are designated as "VOLUNTARY COMPLIANCE" courts in which compliance with treatment recommendations made by WIP staff is done voluntarily by the offenders. The latter are designated as "NON-VOLUNTARY COMPLIANCE" courts in which the court formally orders the offender to comply with the WIP's recommendation.

These dimensions, representing both the concentration of severely alcohol-troubled, high-risk offenders, and whether the court elects to coerce the offender into complying with the WIP's recommendation, will structure the analytic strategy of this evaluation.

METHODS

Because a control group and random assignment to sentencing alternatives were absent in this study, a variety of types of analyses and comparisons were used to measure the association of treatment with recidivism. Statistical controls (e.g. analysis of covariance) were employed when possible and a variety of sub-group comparisons have been made in an effort to isolate the effect of the "WIP process."

As described earlier, the WIP process is defined not only by WIP clients' completion of the program on the campus of the medical school, but also for those who have been referred to treatment, by actually obtaining treatment. Consequently, a certain amount of time is needed for the impact of the WIP process to be felt. Also, people received a wide range of license actions, varying from people whose license was suspended for the entire study time to those whose license was not suspended at all. Consequently, analyses have been limited to persons who have at least 270 days of potential legal driving time.

Raw Recidivism

Several types of analytic strategies were used. A first look at the data focused upon raw recidivism rates. Raw recidivism was defined as any type of alcohol related offense: DWI, reckless operation, physical control, or other alcohol-related offense. A simple yes/no category was used--either a person did or did not recidivate in this set of analyses.

The recidivism rate of people who participated in the WIP process was compared to those who did not. The people in each group (WIP and NONWIP) were categorized further into those who had received a prior alcohol-related offense and those who had not, thus producing a 2x2x2 log-linear model analysis in which recidivism (yes/no), prior offense status (yes/no) and WIP/non-WIP were

compared. Only those people who had at least 270 days of potential legal driving (exposure) time were used in the analysis.

Survival Time

While the simple rate of recidivism is very useful, in many respects it is simplified to the point where it could be misleading. For example, there was concern that a solitary recidivism rate equated people who only survived several days before recidivating to people who survived for many months, thereby clouding obtained results. Consequently, in another series of analyses, the survival time, i.e. how long each person survived (without recidivating) measured in days was used as the dependent variable.

When considering how a license suspension affects driving behavior, and therefore recidivism, one is faced with the question of whether people refrain from driving while under license suspension; some do and some do not. Unfortunately, there is no data on how many do and how many do not. However, license suspension had to be dealt with in some reasonable manner. Survival time was defined as the length of time people survived without rearrest after their license had been reinstated. Thus, survival time equaled the amount of time people were in the study minus their license suspension time. More specifically, this study ran from March 16, 1983 to July 31, 1984. Entrance into the study was defined as the date of conviction of an alcohol-related driving offense. These convictions occurred in every week of the study, thus producing differing amounts of absolute time people were in the study. Moreover, the length of license suspension was not uniform. Consequently, the dependent variable of survival time was defined by two varying lengths of time: time-in-study and length of license suspension. These suspensions were either court ordered or administrative (representing a point accumulation). Survival time was calculated by subtracting suspension time from absolute time in the study.

Defining survival time in this manner is an effort to equate legal driving time between interventions (WIP, Jail, SS/F) and within interventions. However, it cannot be assumed that all people refrain from driving while under suspension. In fact the study data revealed that a substantial number of people recidivated while under license suspension. Twenty-nine percent of the jail recidivists, 18% of the WIP recidivists, and 10% of the SS/F recidivists incurred their repeat offense while under suspension. While the jail people had a much higher recidivism rate while under suspension than WIP and SS/F, it must be remembered that they were suspended for a longer time than the other groups. Nevertheless, it is felt that this definition of survival time was the best of several options because it makes possible the longer term comparisons of the interventions.

In the statistical analyses that follow, it will be seen that people's legal driving time is correlated positively with survival time. Thus, the variable, potential legal driving time, along with others, was used as a covariate in the analyses that follow (analyses of covariance) to adjust (statistically) the dependent variable, survival time. Other variables thought to influence survival time were included as well: age, sex, the amount of time elapsed between date of arrest and date of sentence, and blood alcohol content (BAC).

Of critical interest to us was the question of whether participating in the WIP process resulted in longer survival time (on the average) than not doing so. In this set of analyses, we attempted to exert a greater degree of control over selection factors by introducing into the analyses the court type variables described earlier (i.e. systemic selection for High-risk vs General Assignment offenders and Voluntary vs Non-Voluntary Compliance) and the covariates described in the previous paragraph.

An analysis of covariance in which Voluntary vs Non-Voluntary Compliance, High Risk vs General Assignment, prior offense status, and intervention type (2x2x2x3 analysis of covariance) was conducted, using survival time as the dependent variable. Covariates included age, time separating arrest from final disposition, and potential legal driving time. Again, only those people who had potential legal driving time of at least 270 days were included in the analyses.

Because the effects of nonrandom assignment of offenders to the study groups have been minimized by using analyses to control for such factors as court coerciveness (voluntary vs non-voluntary compliance), court assignment (high risk assignment vs general assignment) and prior offense status, the statistical results that follow, and in particular the p-values, are considered to be good approximations to the results that would be obtained under a random assignment experimental design.

All calculations were carried out in SAS (Statistical Analysis System) and BMDP (Biomedical Package) on the Wright State University IBM 3083 computer.

RESULTS

Raw Recidivism

A log-linear model analysis in which Recidivism, Prior Offense Status, and Intervention Type were compared revealed a significant difference among the recidivism rates of the groups ($p = .0001$). Table 19 displays these data.

TABLE 19

RECIDIVISM RATES FOR WIP AND NON-WIP GROUPS

INTERVENTION TYPE	PRIOR CONVICTIONS	RECIDIVISM RATE %	SAMPLE SIZE
WIP	NO	11.8	712
	YES	21.8	261
NON-WIP	NO	12.7	1209
	YES	27.9	365

N=2547

People who had at least 270 days potential driving time were included in this analysis. Persons in each category who recidivate while under suspensions were excluded.

Across the study groups, the recidivism rate was significantly higher for those people who had experienced prior alcohol-related offenses than for those who had not ($p = .0001$). Repeat offenders who had participated in the WIP had a lower recidivism rate than those who had not participated in it ($p = .083$). The WIP repeat offenders had a 21.8% recidivism rate while those repeat offenders who had not participated in the WIP process obtained a 27.9% recidivism rate. (The SS/F repeat offenders incurred a 30.4% recidivism rate; the Jail repeat offenders obtained a 26.8% recidivism rate).

Survival Time

While the WIP people are seen to have a lower recidivism rate than non-WIP people, a comparison between these two groups can also be made from the perspective of survival time.

The 2x2x2x3 analysis of covariance in which survival time is adjusted for age and potential legal driving time in order to compare voluntary/non-voluntary compliance, high risk/general assignment, prior offense status, and intervention type yields more insight into the impact of the WIP process. However, the time between the entry offense and the beginning of intervention and blood alcohol content showed neither main effects nor interaction with other variables in affecting survival time. Therefore, they were omitted from the analyses. Likewise, gender was not found to influence survival time. Consequently, all analyses contain both male and female drivers, and did not include time between arrest and disposition or blood alcohol content.

As may be seen from Table 20, significant interactions were obtained among Intervention Type, Voluntary/NonVoluntary Compliance and High Risk/General Assignment and between Intervention Type and Prior Offense Status.

TABLE 20

SUMMARY OF ANALYSIS OF COVARIANCE OF SURVIVAL TIME

SOURCE OF VARIATION	DF	SS	F VALUE	PR>F
A (Intervention)	2	22135.474	0.57	0.5674
B (Prior Offense)	1	8828.699	0.45	0.5014
C (Compliance)	1	1080.387	0.06	0.8140
D (Court Type)	1	34467.809	1.77	0.1841
A x B	2	90330.300	2.31	0.0992
A x C	2	34021.299	0.87	0.4186
A x D	2	118375.415	3.03	0.0484
B x C	1	12430.224	0.64	0.4250
B x D	1	12502.717	0.64	0.4237
C x D	1	4144.191	2.11	0.1467
A x B x C	2	10484.864	0.27	0.7645
A x B x D	2	41489.643	1.06	0.3458
A x C x D	2	183521.250	4.70	0.0092
B x C x D	1	107466.549	5.50	0.0191
A x B x C x D	2	40667.821	1.04	0.3531
X (Potential Drive Time)	1	17894533.060	916.56	0.0001
Y (Age)	1	94325.763	4.83	0.0281
X x B	1	111518.281	5.71	0.0169

Due to the presence of significant three-factor interactions in Table 20, a comparison of survival times among the three types of intervention (one-way analysis of covariance) was conducted at each combination of levels of the other three factors (Prior Offense, Compliance, and Court Type). Statistical significance was achieved in only one instance; namely, for repeat offenders, the WIP, Jail, and SSF were significantly different (p= .0322) in the General Assignment, Non-Voluntary Compliance court condition. The adjusted mean survival time (least squares mean) for the WIP repeat offender, in the low General Assignment, Non-Voluntary Compliance court condition was 456.8 days, a value significantly higher than for the other two interventions (Jail=373.9, SS/F=362.0 days).

Within the WIP itself, similar results were expected. It was anticipated that driving performance in the General Assignment courts would be better when the court enforced the WIP's treatment recommendations (in the Non-Voluntary Compliance condition). This is to say, within the General Assignment courts, less raw recidivism and longer survival time for Non-Voluntary Compliance courts than for Voluntary Compliance courts was expected. A trend was found to support this in raw recidivism rates. Focusing on the General Assignment courts, people were less likely to recidivate in the Non-Voluntary Compliance courts than in the Voluntary Compliance courts (p- .09; Non-Voluntary - 11.7%; Voluntary = 15.7%). These recidivism rates, broken down further to distinguish between first-time offenders and repeat offenders, can be found in Table 21. While the direction of the adjusted mean survival time agrees with the above conclusion (Non-Voluntary courts = 509.3; Voluntary courts = 495.7; p= .297), the results were not statistically significant.

TABLE 21

RECIDIVISM RATES IN GENERAL ASSIGNMENT COURTS FOR WIP PARTICIPANTS

COURT DEFINED COMPLIANCE	PRIOR OFFENSE	RECIDIVISM RATE %	SAMPLE SIZE
VOLUNTARY	NO	13.4	231
	YES	25.0	56
NON-VOLUNTARY	NO	9.2	273
	YES	19.5	87

N=647

People who had at least 270 days potential driving time were included in this analysis.

CRASH RATE

Using log-linear model analysis, the crash rate of recidivists was compared among the study groups and between those who had prior convictions and those who did not. There were no significant differences in the crash rate among the three intervention groups (p= .4768) nor between those who had priors and those who did not have priors (p= .4658). The crash rates are shown in Table 22.

TABLE 22

ALCOHOL RELATED CRASH OCCURRING WITH RECIDIVIST OFFENSE

INTERVENTION	PRIOR ALCOHOL RELATED OFFENSE	ACCIDENT RATE (%)	SAMPLE SIZE
WIP	No	12.2	90
	Yes	10.4	67
JAIL	No	8.7	104
	Yes	14.6	89
SSF	No	6.8	59
	Yes	7.5	40

N=449

All people in these groups were used for this analysis.

ALCOHOL PROBLEM AND RECIDIVISM

Specific deterrence is best effected through the identification and treatment of those exhibiting drinking problems. It is assumed that the people suffering from a drinking problem that is out-of-control represent a real and immediate threat to the driving public as long as they have liberty, regardless of their legal driving status. Because abstinence from alcohol and/or other mood altering drugs is a primary goal of treatment, those successful in their recovery--which is seen as a life-long process--will not repeat. Therefore, if the drinking problem is fully addressed, this person will no longer present such a threat.

For the highway safety community, the problem is twofold: (1) Is there an effective method of determining who is currently suffering from a problem and; (2) Is there a relationship between the presence and severity of a drinking problem and the risk of repeating? Since assessment and diagnosis are central to the mission of the WIP, it would be most desirous to determine whether the WIP had the ability to predict who was most likely to repeat.

A test of the relationship between alcohol problem and recidivism was made, comparing the WIP staffs' assessments of clients' drinking problems and these clients' recidivism rates. The proportion of recidivists among the WIP clients increased linearly with the "extent of alcohol problem" as assessed by a counselor. This relationship may be seen in Table 23.

TABLE 23

ALCOHOL PROBLEM SEVERITY AND RECIDIVISM RATE OF WIP PARTICIPANTS

	ALCOHOL PROBLEM					
	NO PROBLEM	LIFE STYLE CONCERNS	MODERATE PROBLEM/ NO DEPENDENCE	MODERATE PROBLEM/ PROBABLY DEPENDENCE	SEVERE PROBLEM	TOTAL
RECIDIVATED	34	44	33	37	32	180
DID NOT RECIDIVATE	279	316	216	204	83	1098
TOTAL	313	360	249	241	115	1278
PROPORTION OF RECIDIVISTS	10.9	12.2	13.3	15.4	27.8	

Missing Data=16

All WIP participants were included in this analysis.

A Pearson chi-squared test of independence led to a p-value of .0002. Cochran's test of linear trend in the proportions yielded to a p-value of .0001. The test of independence implies that there is a significant relationship between the extent of the alcohol problem (as assessed by a counselor) and the likelihood that an individual recidivates. The test of linear trend implies that the nature of that relationship is linear, in the sense that the likelihood of recidivating increases steadily with the severity of the alcohol problem.

Of similar interest, the recidivism rate was significantly higher for those people who were recommended for treatment than for those whom counselors deemed not in need of treatment (p= .001; chi-square test). The obtained recidivism rate for those recommended for treatment was 16.9%, while for those who were not recommended for treatment it was 10.6% (the recidivism rates for those who were and were not recommended for treatment are shown in Table 24).

TABLE 24

WIP PEOPLE RECOMMENDED vs NOT RECOMMENDED TO TREATMENT

RECOMMENDATION MADE TO TREATMENT	RECIDIVISM RATE %	SAMPLE SIZE
YES	16.9	727
NO	10.6	567

N=1294

DISCUSSION

Preventing those who have been identified and convicted of driving while intoxicated from repeating their offense is vital to our efforts to overcome this major public health and social problem. In the past, attempts have been made to modify behavior through driver alcohol-education or short-term treatment. More recently, efforts have involved incarceration, license action and a relatively new therapeutic approach called intervention. Using recidivism as its major outcome measure, this research study examined the relative impact of jail, a suspended sentence and fine, or intervention provided by the Weekend Intervention Program upon remanded offenders.

The study design is structured by several considerations over which there is no control: non-random assignment, the absence of an investigator-created control group, differing amounts of exposure time, differences in license suspension time between study groups affecting legal driving privileges, and differences in how participating courts use the WIP. The statistical techniques used in the analysis of the data, including analysis of covariance, with careful chosen blocking variables, and log-linear model analysis, were specifically chosen so as to minimize the confounding effects resulting from these unavoidable experimental design problems.

The study was designed to use a naturalistic approach in which controls would be effected statistically and by partitioning when possible, within study groups. Given the "real world" limitations imposed by social and political concerns and the modest resources provided to complete the study, this proved to be the most feasible way to proceed. However, it must be realized that causes other than the ones offered could be conjectured to explain these findings. With that stipulation in mind, the following outline represents what the results of this study mean.

Among the usually difficult repeat offender population, those assigned to the WIP had a significantly lower recidivism rate than people not assigned to the WIP. One might explain such a finding by suggesting that the "Jail Group" consisted of offenders who had the greatest chance of recidivism. Judges were examining the evidence available to them and simply prognosticating through their sentencing decision. However, one would expect, as well, that judges would have a roughly equal success in identifying those least likely to repeat and impose just a suspended sentence/fine upon those latter offenders. The fact that the outcome for the WIP group was better than for the combined jail and suspended sentence/fine group strengthens the conclusions that the WIP has a positive impact upon recidivism. Among first-time offenders, WIP is again seen to have a lower recidivism rate (although the difference is not quite statistically significant at the 0.1 level of significance) for those offenders in general assignment, non-voluntary compliance courts than the group of all other non-WIP offenders.

The way in which the courts used the WIP had a strong influence upon how long WIP participants survived before incurring another offense. For repeat offenders, when the courts utilized the WIP for a general range of drunk driving offenders and incorporated the WIP's recommendations as part of their final disposition (they officially mandated compliance with WIP recommendations for treatment), offenders survived longer; these offenders, who were mandated to comply with the recommendations, survived longer than those where the same court had assigned to jail or imposed a suspended sentence/fine. It

is believed this is an important finding because it highlights the notion that the type of intervention provided by the WIP reflects a process uniting several systems in the community. The findings suggest that Intervention -- i.e. the WIP process -- has a powerful effect on preventing recidivism; especially among the more seemingly difficult population of repeat offenders.

These findings must be viewed in a larger context. The WIP is but a single component in the community's response to drunk driving. It performs a gate-keeping or triage function uniting the criminal justice system with the human service system. On one end, the WIP looks to the referring court to support its recommendation and thereby effect compliance. On the other, the WIP looks to the community agency to actually provide the service it recommended. Without court involvement, compliance is less likely; and, treatment outcome is certainly related to service availability and quality.

With this perspective, focusing on the WIP group coming from General Assignment Courts, it can readily be seen why the data showed lower recidivism rates among those courts more likely to mandate compliance (Non-Voluntary Courts) than by those who leave it to the discretion of the offender. This also helps to explain the findings of "no difference" in outcome among first time offenders. Here, recall, it is much more likely that the offender is "finished" with the court once he completes the WIP. Any compliance with WIP recommendations is wholly voluntary and is therefore more problematic. Hence, those first time offenders diagnosed by the WIP staff as suffering from a drinking problem are less likely to obtain the necessary treatment services.

CONCLUSION

The WIP represents a unique fusion of alcohol and drug abuse treatment programming with highway safety specific deterrence efforts. It is predicated on the belief that those people who are harmfully involved with alcohol or any other drug -- i.e. in the face of persistent problems and unpleasant consequences, are unable or unwilling to alter their drinking pattern -- deterrence can be achieved best by addressing their drinking problem. If it is not resolved, it is more likely they will repeat, thereby endangering the motoring public and pedestrian as well. At an intuitive level, it is easy to appreciate the possible connection between problem drinking and recidivism. However, up to the present time, the relationship between alcohol-problem severity and recidivism has not been adequately established. The fact that this research has been able to demonstrate a strong correlation between alcohol problem severity and recidivism is perhaps the most exciting of its findings.

This finding conclusively demonstrates that an alcoholism treatment professional, using the WIP method, can meaningfully distinguish between those who have drinking problems and those who do not; and, having done so, accurately place those who do on a continuum of problem severity. The data clearly demonstrate that as the problem worsens, (becomes more severe) the risks of recidivism increase dramatically.

The implications of all these findings are substantial. For those communities in which the WIP is already in place, it validates the trust that courts and other agencies have placed in it. Furthermore, it should encourage greater use of WIP recommendations by judges in their sentencing decisions. For those communities not using such an assessment process, the findings of

this study should encourage a serious consideration of the Weekend Intervention Program approach as another component in their system-wide efforts to attack the problems of drunk and impaired driving.

IMPLICATIONS FOR FUTURE RESEARCH

While it had long been suspected that a "different type" of offender was being referred by some participating courts, it was astounding to learn that the profound differences on virtually every risk domain -- driving history, alcohol pathology, recommended to treatment -- separated the General from the High Risk Assignment Courts. This group may be considered as perhaps the most problematic and posing the greatest potential threat to the motoring public. Additional research will make it possible to bring this special, high risk population more clearly into focus.

While the study demonstrated that outcome was better--i.e. less recidivism among those referred from Non-Voluntary Compliance courts--the compliance issue still needs more focused investigation. A substantial proportion of those referred for post-WIP treatment came from "level-of-service" courts, that is courts who requested that the WIP suggest the kind of service needed, but it would be their probation department which would be responsible for the final determination of service type and the program to provide it. Interestingly enough, many of the High Risk Assignees come from this kind of court.

Furthermore, there appears to be much post-WIP treatment program "shopping" by WIP participants. In this situation, the WIP clients may initially contact the program recommended by their counselors to discover that they cannot afford the fees or that their health insurance would not cover it; or the hours that the service is provided conflicts with work; or, they have difficulty relating to the assigned therapist. They then contact another agency or program and ultimately complete recommended treatment there. A sponsored research study looking at compliance issues by WIP clients, currently underway, suggests that "program shopping" is very common and that it is likely that more than 30% of the referrals made are renegotiated in this way (Siegal, 1985).

A future research priority should be a study allowing direct contact with those referred for treatment by a program such as the WIP. By interviewing these people it would be possible to establish whether they did comply with the recommendation made, their perceptions of the service provided, and their own reports of the impact of the service on their lives. These data could then be linked with driving records to establish the relationship between problem diagnosis, treatment and highway safety.

Finally, while the results of this study are both positive and encouraging, the actual exposure time available for follow-up was relatively brief. This encourages the speculation that the absences of any significant differences between study groups along the dimension of alcohol-related crashes relates to the relatively brief exposure period and given more exposure time some differences might appear.

It is strongly suggested that plans be formulated and resources dedicated to replicating the final parts of the study--i.e. obtaining driver's records, coding and analyzing them--in approximately two years time. This extra exposure time would make it possible to visualize the long-term impact of the interventions.

To the present, several states and localities with the assistance of Wright State, have replicated the WIP. Continued contact with these Weekend Intervention Programs in Missouri, Wyoming, Cleveland, Ohio, and most recently Alberta, Canada, suggests that they are well received in their area and they are meeting their goals and objectives.

It is strongly recommended that this evaluation study be replicated in those other locations in which Weekend Intervention-type programs have been established and are currently in operation. Because these areas are so different, such a study would determine the efficiency of the Intervention approach in affecting specific deterrence. The positive findings obtained in this study strongly supports the need for this kind of replication study.

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APPENDIX A

Item	Code	Variable	Col	Line Number (card)
1	ID	Social Security Number	01-09	1
2	DECK	Card Identification	10	1
3	Group		12	1
	1 = 72 hr. WIP 2 = 48 hr. WIP			
	3 = Jail WIP 4 = Jail 5 = Suspend Sentence/Fine			
	6 = Jail & Education 7 = Other: Diversion, Referral, etc.			
4	CASE	Court Case Number	19-25	1
5	COURT		26-27	1
6	JUDGE		28-29	1
7	ZIP		33-37	1
8	SEX	0 = Male; 1 = Female	38	1
9	DTB	Birthdate	39-44	1
10	BMVCK	Earliest BMV Date	45-49	1
11	OFFNS	Offense Bringing Subject into Study	50	1
	1 = DUI 2 = Reckless Operation			
	3 = Physical Control 4 = Other			
12	OFFAC	Accident with Offense	51	1
		0 = No; 1 = Yes		
13	DTOFF	Date of Offense	52-57	1
14	LSUSP	Court Ordered License Suspension	60	1
		0 = No; 1 = Yes		
15	DTLS1	License Suspension Beginning Date	68-75	1
16	DTLS2	License Suspension Ending Date	76-83	1
17	NPDW	Number Prior DUI's	92	2
18	DTPDW	Date of Most Recent Prior DUI	100	2
19	NPRO	Number Prior Reckless Operations	108	2
20	DTPRO	Date of Prior Reckless Operations	116	2
21	NPPC	Number of Prior Physical Controls	124	2
22	DTPPC	Date of Most Recent Prior PC	132	2
23	NPAC	Number of Prior Alcohol Related Acc.	140	2
24	DTPAC	Date Most Recent Prior A/R Accident	148	2
25	BAC	Blood Alcohol Count	156	2
26	DTS	Date of Sentencing	164	2
27	RACE		204	2
1 = White 2 = Black 3 = Hispanic 4 = Oriental 5 = American Indian 6 = Other				
28	MARITAL	STATUS	212	2
	1 = Married 2 = Widowed 3 = Divorced 4 = Separated 5 = Never Married			
29	OCC	Occupation	220	2
		(See attached list)		
30	FORM	Client Assessment Form	236	2
31	NSPDW	Number Self Reported Prior DUI	244	2
32	NSPRO	Number Self Reported Prior Reckless Operation	252	2
33	NSPPC	Number Self Reported Prior Physical Control	260	2
34	NSPOTH	Number Self Reported Prior Other A/R Offenses	268	2
35	COUNSL1	Primary Counselor		
		(See attached list)		

36	COUNSL2		284	2
37	FAMILY	Subject Family Situation	292	3
	1 = Satisfactory	2 = Marginal	3 = Dysfunctional	
38	WORK	Work Situation	300	3
	1 = Satisfactory	2 = Marginal	3 = Dysfunctional	
39	HEALTH	Health Situation	308	3
	1 = Satisfactory	2 = Marginal	3 = Dysfunctional	
40	PSYCH	Current Psychological Situation	316	3
	1 = Satisfactory	2 = Marginal	3 = Dysfunctional	
41	PSYTYP	Psychological Type	324	3
	0 = No Problem	1 = Depression	2 = Anxiety	
	3 = Suicidal	4 = Maturity	5 = Other	
42	LDRG1	Substance Abused in Lifetime, Drug 1	332	3
	0 = None	01 = Depressant: Barbiturates	02 = Stimulants	
	03 = Marijuana, Hashish	04 = Tranquilizers, Valium	05 = Cocaine	
	06 = Narcotics	07 = Deliriants: Glue	08 = Hallucinogens: LSD	
	09 = Other			
43	LFRQ1	Frequency of use in Lifetime for Drug 1	332	3
	0 = None	1 = Experimental: 1-2 in lifetime		
	2 = Social: 2-3 times in lifetime / 1 time per week			
	3 = Recreational: 1+ times per week			
	4 = Heavy: Daily Use			
44	LDRG2	Second Drug Abused in Lifetime	348	3
45	LFRQ2	Frequency of Use in Lifetime for Second Drug	356	3
46	LDRG3	Third Drug Abused in Lifetime	364	3
47	LFRQ3	Frequency of Use in Lifetime for Third Drug	372	3
48	LDRG4	Fourth Drug Abused in Lifetime	380	3
49	LFRQ4	Frequency of Use in Lifetime for Fourth Drug	388	3
50	YDRG1	Drug 1 - Abused in Last Year	396	3
51	YFRQ1	Frequency of Drug 1 Abuse in Last Yr.	404	3
52	YDRG2	Drug 2 - Abused in Last Year	412	3
53	YFRQ2	Frequency of Drug 2 Abuse in Last Yr.	420	3
54	YDRG3	Drug 3 - Abused in Last Year	428	3
55	YFRQ3	Frequency of Drug 3 Abuse in Last Yr.	436	3
56	QDRG1	Drug 1 - Abuse in last Quarter	444	3
57	QFRQ1	Freq. - Abuse in last Quarter	452	3

58	QDRG2	Drug 2 - Abuse in last Quarter	460	3
59	QFRQ2	Freq. - Abuse in last Quarter	468	3
60	QDRG3	Drug 3 - Abuse in last Quarter	476	3
61	QFRQ3	Freq. of Use in last Quarter	484	3
62	ALCPROB	Alcohol Problem Assessment	492	3
		0 = No Problem		
		1 = Mild, No Dependence		
		2 = Moderate, No Dependence		
		3 = Moderate		
		4 = Severe		
63	ALCDEP	Dependence on Alcohol	500	3
		0 = No dependence 1 = Physical Dependence		
		2 = Psychological Dependence		
		3 = Physiological and Psychological Dependence		
64	TRTHIS	Treatment History	508	3
		0 = None 1 = Ongoing 2 = Prior		
65	MOTLEV	Motivational Level	516	3
		1 = Low 2 = Medium 3 = High		
66	FOLLOW	Client Follow-up Recommendation	524	3
		0 = No 1 = Yes 2 = Uncertain		
67	RECPOT	Potential for DUI Recidivism	532	3
68	TRTREC	Treatment Follow-up Recommendation	540	3
		01 = No Follow-up		
		02 = No Follow-up/maturity		
		03 = No Follow-up/Lifestyle Places Individual at Risk		
		04 = Limited Education - Counseling		
		05 = Standard Outpatient		
		06 = Day Care		
		07 = Inpatient		
		08 = Alcoholics Anonymous		
		09 = Narcotics Anonymous		
		10 = Marital, Vocational Counseling		
		11 = Mental Health Counseling		
		12 = Combination of Above		
		13 = Referral back to Ongoing Treatment		
		14 = Other		
69	AGENCY	Agency Referral (See attached list)	548	3
70	NPTOT	Number of Prior Total Offenses (DUI + RO + PC . . .)	556	3
71	AGEYR	Age	564	3
72	SUSPLEN	(DTLS1-DTLS2)	572	3
73	SENTLAG	Time Between (DTS-DTOFF)	580	3
74	BAT	Batch Number		
75	ID	Social Security Number		

76. CODE Compilation Date

77. STAT Current License Status
0 = Deceased 1 = Valid 2 = Invalid

78. EOFT End Date Court Ordered License Suspension for Entry Offense

79. RED Recidivist Offense Date

80. ROT Recidivist Offense Type
1 = DUI 2 = Reckless Operation 3 = Physical Control 4 = Other

81. RENO Recidivist Offense Case Number

82. RACC Accident with Recidivist Offense
1 = No 2 = Yes

83. DUS Driving Under Suspension Offense
1 = No 2 = Yes

84. DUST Date of Driving Under Suspension Offense

85. DUSNO Number of Driving Under Suspension Offenses

86. PRERED1 Begin date Pre-recidivist Administrative Suspension

87. PRERED2 End Date Pre-recidivist Administrative Suspension (or Recidivist Offense Date or Compilation Date whichever comes first)

88. OAO Number of Other Alcohol Related Offenses

89. OTHACC Number of Other Accidents

90. COMP Treatment Recommendation Follow-up Compliance
1 = No Contact with Treatment Agency
2 = Contacted Agency
3 = Entered Treatment
4 = Completed Treatment

91. PRES Alcohol-Related Offense Preceding Date of Sentencing for Entry Offense
1 = No 2 = Yes

92. SASCODE Compilation Date converted to SAS date

93. SASEOFT End Date Court Ordered License Suspension for Entry Offense converted to SAS date

94. SASRED Recidivist Offense Date converted to SAS date

95. SASDUST Date of Driving Under Suspension converted to SAS date

96. SASPRED1 Number of Driving Under Suspension Offenses converted to SAS date

97. SASPRED2 End Date Pre-recidivist Administrative Suspension (or Recidivist Offense Date or Compilation Date whichever comes first) converted to SAS date

Entry Not Applicable = 888
Information Missing = 999

APPENDIX B

CODING PROCEDURE

The ending date of the original entry offense court suspension was recoded. Many of the orginal entries were incorrect, either incorrectly transcribed or because the court suspension was terminated early by the court.

A variable named CODE was used to indicate the date the source document was produced. CODE serves to limit the study examination period. The only exception to this rule is if the original court suspension extends beyond CODE, it is written as is. Any other suspension is coded as ending at CODE.

The original court suspension is also given priority over any administrative suspensions, if the original court suspension lasts beyond CODE, no intervening administrative suspensions were coded.

The fundamental guideline was to record discretely the suspensions, with no overlapping. Thus, if an administrative suspension occurs before the original court suspension ends and continues beyond it, the beginning date of the administrative suspension is deemed to be the ending date of the court suspension. Also, an administrative suspension lasting beyond CODE is deemed ended at CODE.

In the case of a recidivist offense, administrative suspensions (but not court) are deemed to be ended as of the date of the recidivist offense. This does not affect the recording of driving under suspension offenses or their dates. Suspensions occurring subsequent to the recidivism are not relevant to driving time eligibility analysis since the subject has undergone the change of state being measured. The variable STAT records the current license status.

Some examples:

CODE-Date of sentence
CODE-(Administrative Suspension)-(Court Suspension)-Date of Sentence

RECIDIVIST DATE-(Administrative Suspension)-(Court Suspension)-Date of Sentence